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Fragility fractures and socioeconomic status

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Background: Many of the risk factors for reduced bone density and increased falls risk are associated with poverty. No study using validated measures of depravation has specifically investigated the relationship between fragility fractures and socioeconomic status. Furthermore, little work has been performed looking at the management of these fractures and the outcome in different socioeconomic groups.

Objective: To determine the incidence and epidemiology of proximal femoral fragility fractures and their management with relation to socioeconomic status.

Design: Retrospective analysis of prospectively collected database of 1192 proximal femoral fragility fractures in a defined population between 01 January 2006 and 31 December 2008.

Results: The incidence of proximal femoral fracture in our sample was 8/10,000 in males and 12/10,000 in females aged 65–69 rising to 107/10,000 and 363/10,000 in males and females, respectively, aged 90–94. No significant difference in incidence was found between difference socioeconomic groups. Men from the most deprived populations were significantly more likely to sustain fractures at a lower age compared to the most affluent groups. This trend was not seen in women. There was no significant difference seen in time from admission to surgery, or in the acute NHS stay or superstay. The percentage of patients returning to their admission residence did not vary between socioeconomic groups. Thirty-day mortality was 10% and mortality at one year was 31%. No significant different difference was seen between socioeconomic groups.

Conclusions: Poverty is not associated with an increased incidence of neck of femur fracture or excess mortality within this patient group. Strategies implemented to correct health inequalities may not alter the incidence of femoral neck fractures. However improving health in an aging population, without regard to fracture prevention, may increase the number of fractures and as a consequence the demand on orthopaedic trauma services.

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Reverse oblique intertrochanteric femoral fractures treated with the Intramedullary Hip Screw (IMHS)

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Aims: Recent studies have recommended the use of cephalocondylic intramedullary devices for the treatment of reverse oblique intertrochanteric femoral fractures (OTA/AO 31-A3). Both the Proximal Femoral Nail (PFN) and the Gamma Nail (GN) have shown good outcome results but the results of treatment with the IMHS have not been reported in the literature. Our aim was to review outcomes of these unstable fractures treated with the IMHS implant at our institute.

Methods: Between 1999 and 2008, 6724 consecutive hip fractures were treated at our institute. There were 115 reverse oblique intertrochanteric fractures and 63 of these were treated with the IMHS. We retrospectively reviewed clinical and radiological records for these fractures treated with the IMHS. Follow-up duration ranged from 1 to 6 years.

Results: Among the 63 patients treated with the IMHS, 56 (88%) fractures were reduced satisfactorily with one poorly positioned hip screw and one breach of the anterior femoral shaft cortex. The mean operative time was 115 min, 22 patients required a blood transfusion and 20 had post-operative medical complications. The orthopaedic complications included two cases of mal-rotation, two non-unions, two cases of distal locking bolts backing out, one cracked nail and one case of deep infection. 30-day mortality was 6.5%.

Conclusion: The clinical and radiological outcomes achieved at our institute with the IMHS compare favourably to the results achieved with other cephalo-medullary devices. We consider the IMHS a good implant for the treatment of these unstable fractures.

Keywords: Reverse oblique; Intertrochanteric; IMHS

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Outcome of total hip replacement for sub capital neck of femur fracture in younger active patients—our experience in a non-specialized centre

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Introduction: There is an increasing number of total hip replacements (THR) being carried out primarily on patients with a sub capital fracture reflecting the change of opinion nationally towards a more positive view on replacement as the initial choice of treatment for these fractures. A number of randomised trials have shown that THR results in better function and improvement in health-related quality of life (HRQoL) and has a lower failure rate than internal fixation.

Aims: To compare the early results of THR in our younger, active patients after fracture neck of femur (NOF) with large series from specialized centres.

Materials and methods: Between May 2008 and April 2009, there were 9 patients who underwent THR for a fracture NOF. Eight were very active prior to fracture, undertaking swimming, Gym workouts, recreational walking and manual work. One patient had an Arthritic hip associated with his fracture.

There were 5 females and 4 males, average age 70 (46–89). Six were performed via the posterior approach, three via the hardinge approach. Surgery was performed by one of five general consultant orthopaedic surgeons.

Five implants were uncemented with 36 mm heads, four were cemented with 28 mm heads.

Results: There have been no dislocations. There have been no revision procedures. The mean follow up is 5.5 months (1–14). There were no post operative complications. At the last review, all patients had returned to the same level of mobility as pre operatively including manual work, Pilates and regular gym activity. The average Oxford Hip Score was 30.5 (13–46). All patients are satisfied with their outcomes.

Conclusions: Our early results compare favourably with larger published series from specialized centres. We share the positive view on replacement as the initial choice of treatment for these fractures in more active patients. However, we believe that patient selection is an important factor. Longer term follow-up is required in our cohort of patients.

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